

**REMARKS**

The Official Action mailed July 30, 2003, has been received and its contents carefully noted. Filed concurrently herewith is a *Request for One Month Extension of Time*, which extends the shortened statutory period for response to November 30, 2003. Accordingly, the Applicants respectfully submit that this response is being timely filed.

The Applicants note with appreciation the consideration of the Information Disclosure Statement filed on July 19, 2000.

Claims 1-28 were pending in the present application prior to the above amendment. Claims 26-28 have been canceled, claims 1, 4, 8, 12, 15, 19 and 23-25 have been amended to better recite the features of the present invention, and new claims 29-37 have been added to recite additional protection to which the Applicants are entitled. Accordingly, claims 1-25 and 29-37 are now pending in the present application, of which claims 1, 4, 8, 10, 12, 15, 19, 21 and 23-25 are independent. For the reasons set forth in detail below, all claims are believed to be in condition for allowance. Favorable reconsideration is requested. The Applicants note with appreciation the allowance of claims 10, 11, 21 and 22.

Paragraph 2 of the Official Action rejects claims 1, 2, 8, 12, 13, 19, 23, 25, 26 and 28 as anticipated by U.S. Patent No. 5,812,109 to Kaifu et al. The Applicants respectfully submit that an anticipation rejection cannot be maintained against the independent claims of the present invention, as amended.

As stated in MPEP § 2131, to establish an anticipation rejection, each and every element as set forth in the claim must be described either expressly or inherently in a single prior art reference. Verdegaal Bros. v. Union Oil Co. of California, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987).

Kaifu does not teach all the elements of the independent claims, either explicitly or inherently. The present invention relates to a semiconductor device comprising a pixel portion having a pixel electrode and a sensor portion, where the pixel electrode comprises a reflecting material and a light-transmitting material. Further, independent

claims 1, 4, 8, 12, 15, 19 and 23-25 have been amended to recite that the pixel electrode comprises a first layer and a second layer provided over the first layer, where one of the first layer and the second layer of the pixel electrode comprises a reflecting material and the other of the first layer and the second layer of the pixel electrode comprises a light-transmitting material. The Official Action asserts that Kaifu teaches "a pixel electrode (left portion in Figure 4B), comprising a reflecting material, 6, and a light-transmitting material, 5" (page 2, Paper No. 16). However, it appears that Fig. 4B of Kaifu teaches an injection prevention layer 5 which consists of an a-Si n layer (col. 8, lines 1-2) and an upper electrode 6 consisting of Al (col. 8, lines 3-5). It does not appear that the injection prevention layer 5 is light-transmitting material or that the upper electrode 6 is a reflecting material. Therefore, Kaifu does not teach that the pixel electrode comprises a first layer and a second layer provided over the first layer, where one of the first layer and the second layer of the pixel electrode comprises a reflecting material and the other of the first layer and the second layer of the pixel electrode comprises a light-transmitting material, either explicitly or inherently.

Since Kaifu does not teach all the elements of the independent claims, either explicitly or inherently, an anticipation rejection cannot be maintained. Accordingly, reconsideration and withdrawal of the rejections under 35 U.S.C. § 102(b) are in order and respectfully requested.

Paragraph 3 of the Official Action rejects claims 3-7, 9, 14-18, 20, 24 and 27 as obvious based on the combination of Kaifu and U.S. Patent No. 5,585,817 to Itoh et al. The Applicants respectfully submit that a *prima facie* case of obviousness cannot be maintained against the independent claims of the present invention, as amended.

As stated in MPEP §§ 2142-2143.01, to establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the

prior art reference (or references when combined) must teach or suggest all the claim limitations. Obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either explicitly or implicitly in the references themselves or in the knowledge generally available to one of ordinary skill in the art. "The test for an implicit showing is what the combined teachings, knowledge of one of ordinary skill in the art, and the nature of the problem to be solved as a whole would have suggested to those of ordinary skill in the art." In re Kotzab, 217 F.3d 1365, 1370, 55 USPQ2d 1313, 1317 (Fed. Cir. 2000). See also In re Fine, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988); In re Jones, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992).

The prior art, either alone or in combination, does not teach or suggest all the features of the independent claims, as amended. Itoh does not cure the deficiencies in Kaifu. The Official Action relies on Itoh to allegedly teach a top gate TFT (page 7, Paper No. 16), and the features of a plurality of sensor portions (page 8, Id.). Kaifu and Itoh, either alone or in combination, do not teach or suggest that the pixel electrode comprises a first layer and a second layer provided over the first layer, where one of the first layer and the second layer of the pixel electrode comprises a reflecting material and the other of the first layer and the second layer of the pixel electrode comprises a light-transmitting material.


Since Kaifu and Itoh do not teach or suggest all the claim limitations, a *prima facie* case of obviousness cannot be maintained. Accordingly, reconsideration and withdrawal of the rejections under 35 U.S.C. § 103(a) are in order and respectfully requested.

Further, the Applicants have added new dependent claims 29-37 which recite that the pixel electrode of the present invention has an image display function. In the "Response to Arguments" section of the Official Action, it is explained that "Kaifu discloses the removal (col. 7, lines 12-22) of a portion of the aluminum electrode" (page

13, Paper No. 16). In col. 7, lines 12-22 of Kaifu, an Al film serving as an upper metal layer is deposited and is patterned, thereby forming the upper electrode of the photoelectric conversion element rather than a display element. The pixel electrode of Kaifu does not have an image display function. Itoh does not appear to cure the deficiencies in Kaifu. Therefore, Kaifu and Itoh, either alone or in combination, do not teach or suggest a pixel electrode having an image display function. As such, the Applicants respectfully submit that new claims 29-37 are in condition for allowance.

Should the Examiner believe that anything further would be desirable to place this application in better condition for allowance, the Examiner is invited to contact the Applicants' undersigned attorney at the telephone number listed below.

Respectfully submitted,

  
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